I claim:

1. A machine adapted to cut rods from rod stock, the machine comprising:

- means for advancing the rod stock;

- a closed knife mounted for reciprocating movement between first and second positions, said knife having an opening through which the advancing rod stock passes when the knife is in said first position, said knife being adapted to shear off a rod from the rod stock upon moving toward said second position; and

- an air supply positioned upstream of the knife to discharge the cut rod from the knife.

2. The machine as defined in claim 1 in which said air supply is positioned in alignment with the opening in the knife when the knife is in said second position.

3. The machine as defined in claim 2 in which said air supply includes a first air transport line having a discharge end aligned with the opening in the knife when the knife is in said second position.

4. The machine as defined in claim 3 further comprising a support die having an opening through which the advancing

stock passes upstream of the knife, and in which said first air transport line extends through said die.

5. The machine as defined in claim 2 in which said air supply further includes a second air transport line discharging into the opening in said knife.

6. The machine as defined in claim 5 in which said second air transport line extends through said knife and is positioned to receive air from said first transport line.

7. The machine of claim 1 further comprising a gage surface located to position the advancing rod stock in the knife, said gage surface being connected for resilient movement as the knife returns to said first position to enable discharge of the sheared rod from the knife in said first position by the advancing stock in the event the rod is not fully discharged by said air supply and is carried back to said first position in the knife.

8. The machine of claim 7 further comprising a gage pin having an end defining said gage surface, said gage pin being formed with a tapered portion positioned for engagement with the rod as the rod approaches said first position to assist in the removal of the rod from the knife.

9. A machine adapted to cut rods from rod stock, the machine comprising:

- means for advancing the rod stock;

- a closed knife mounted for reciprocating movement between first and second positions, said knife having an opening through which the advancing rod stock passes when the knife is in said first position, said knife being adapted to shear off a rod from the rod stock upon moving toward said second position; and

- a gage surface located to position the advancing stock in the knife, said gage surface being connected for resilient movement as the knife returns to said first position to enable discharge of the sheared rod from the knife in said first position by the advancing stock.

10. The machine of claim 9 further comprising a gage pin having an end defining said gage surface, and in which the sheared rod engages the gage pin and causes said resilient movement thereof as the knife returns to said first position.

11. The machine of claim 10 further comprising a base and a cap connected to the base for resilient movement therebetween, said gage pin being operatively connected to said cap such for resilient movement therewith.

12. The machine of claim 10 in which the gage pin is formed with a tapered portion positioned for engagement with the rod as the rod approaches said first position to assist in removal of the rod from the knife.

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13. A machine adapted to cut rods from rod stock, the machine comprising:

- means for advancing the rod stock;

- a closed knife connected for reciprocating linear movement between first and second positions, said knife having an opening extending along said axis and through which the advancing rod stock passes when the knife is in said first position, said knife being adapted to shear off a rod from the rod stock upon moving toward said second position;

- an air supply positioned upstream of the knife to discharge the sheared rod from the knife when in said second position; and

- a gage pin located to engage the downstream end of the advancing rod stock to position the stock in the knife,

- the gage pin being connected for resilient linear movement with the knife as the knife returns to said first position to enable discharge of the rod from the knife by the advancing stock in the event the sheared rod is not fully ejected by said air supply and is carried back toward said first position in the knife.

14. The machine of claim 13 further comprising a base and a cap connected to the base for resilient movement therebetween, said gage pin passing between said base and

said cap such that the resilient movement of the cap enables said resilient movement of the gage pin.

15. The machine of claim 13 in which the gage pin is formed with a tapered portion positioned for engagement with the rod as the rod approaches said first position to assist in removal of the rod from the knife.

16. The machine of claim 13 further comprising a support die having an opening through which the advancing rod stock passes upstream of the knife, and in which said air supply includes an air transport line extending through the die and having a discharge end aligned with the opening in the knife when the knife is in said second position.